

12

EUROPEAN PATENT APPLICATION

21 Application number: **88111194.2**

51 Int. Cl.4: **B62D 6/02 , B62D 5/08**

22 Date of filing: **13.07.88**

30 Priority: **28.07.87 US 78840**

43 Date of publication of application:
08.02.89 Bulletin 89/06

64 Designated Contracting States:
DE ES FR GB IT

88 Date of deferred publication of the search report:
28.06.89 Bulletin 89/26

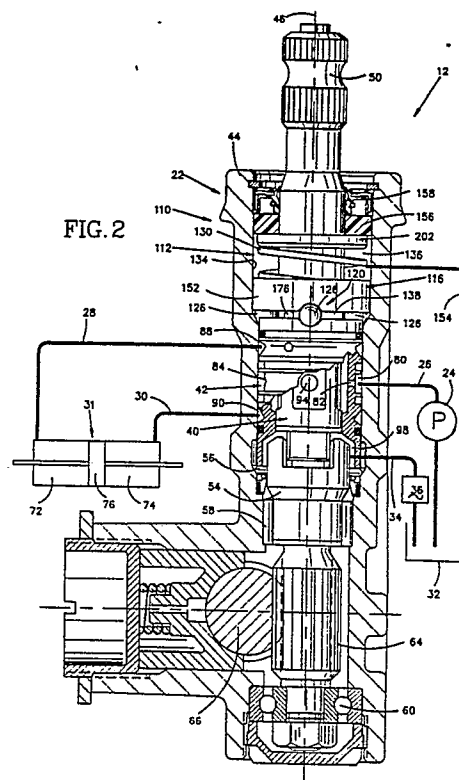
71 Applicant: **TRW INC.**
1900 Richmond Road
Lyndhurst Ohio 44124(US)

72 Inventor: **Dymond, Richard Warren**
2105 Avon Crest
Rochester, Michigan 48063(US)

74 Representative: **Leiser, Gottfried, Dipl.-Ing. et al**
Patentanwälte Prinz, Leiser, Bunke & Partner
Manzingerweg 7
D-8000 München 60(DE)

54 **Power steering system.**

57 A power steering control valve (22) includes relatively rotatable inner (40) and outer (42) valve members. A power steering resistance control system resists relative rotation between the inner and outer valve members with a force which varies as a function of variations in vehicle speed. The power steering resistance control system includes a force transmitting member which is disposed adjacent to one end of an outer valve member. A spring force is applied against the force transmitting member urging it in a first direction along the axis of rotation of the valve members. Fluid pressure is applied against the opposite side of the force transmitting member to urge it in the opposite direction along the axis of rotation of the valve members. A speed responsive control unit, connected with a fluid return conduit for the power steering valve, is operable to vary the fluid pressure applied against the force transmitting member as a function of variations in vehicle speed. At relatively low vehicle speeds, the fluid pressure force applied against the force transmitting member is relatively large and it is easy to actuate the steering control valve. As vehicle speed increases, the fluid pressure force applied against the force transmitting member decreases and the resistance to actuation of the steering control valve increases.





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 88111194.2
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	DE - A1 - 3 516 219 (KOYO JIDOKI) * Fig. 1; abstract * --		B 62 D 6/02 B 62 D 5/08
A	DE - A1 - 3 247 745 (DAIMLER-BENZ) * Fig. 1; abstract * --		
A	DE - A1 - 3 514 406 (KOYO JIDOKI) * Fig. 2; abstract * --		
A	DE - B2 - 2 127 187 (NISSAN) * Fig. 1; abstract * --		
A	US - A - 4 681 184 (SUZUKI) * Fig. 1; abstract * --		
D,A	US - A - 4 583 610 (HASEGAWA) * Fig. 1; abstract * --	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4) B 62 D
D,A	US - A - 4 034 825 (ADAMS) * Fig. 1; abstract * --	1	
D,A	US - A - 4 373 598 (ELSER) * Fig. 1,2; abstract * --	1	
D,A	US - A - 4 276 812 (DYMOND) * Fig. 1,2,3,4 * ----	9	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 07-04-1989	Examiner PANGRATZ
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			